

Richard Harkins et al.
Serial No. 10/624,884
Filed: July 22, 2003
Page 3

In the Claims:

For the Examiner's convenience, Applicants present all ~~pending~~ claims with status indicators in compliance with the practice guidelines for making amendments under 37 C.F.R. §1.121(c)(1).

Please amend claims 30 and 37, cancel claim 36 and add new claims 38-49 as follows:

Claims 1-29 CANCELLED

30. (CURRENTLY AMENDED) A method of detecting a disease-state in a subject, wherein the disease-state is associated with expression of an RG1 polypeptide having the amino acid sequence of SEQ ID NO: 2, and wherein the method comprises:
- (a) administering to the subject an immunoconjugate, wherein the immunoconjugate comprises a monoclonal antibody or a fragment ~~or a~~ variant thereof that specifically binds to ~~an epitope present in the~~ RG1 polypeptide having the amino acid sequence of SEQ ID NO: 2, and wherein the monoclonal antibody or the fragment ~~or the variant~~ thereof is conjugated to a molecule which is a detectable marker;
 - (b) detecting the bound immunoconjugate; and
 - (c) determining if the level of bound ~~binding of the~~ immunoconjugate is increased as compared with the level of ~~binding detected~~ bound immunoconjugate in disease-free ~~control~~ subjects, an increased level of bound immunoconjugate being indicative of a disease state.
31. (PREVIOUSLY PRESENTED) The method of claim 30, wherein the method of detection is ~~immunoseintigraphy~~ immunoscintigraphy.
32. (CANCEL)

Richard Harkins et al.
Serial No. 10/624,884
Filed: July 22, 2003
Page 4

33. (PREVIOUSLY PRESENTED) The method of claim 30, wherein the method of detection is positron emitting tomography.
34. (PREVIOUSLY PRESENTED) The method of claim 30, wherein the detectable marker of the immunoconjugate is selected from a group consisting of ^{43}Sc , ^{44}Sc , ^{52}Fe , ^{55}Co , ^{68}Ga , ^{64}Cu , ^{86}Y , $^{94\text{m}}\text{Tc}$, ^{111}In , or ^{90}Y .
35. (PREVIOUSLY PRESENTED) The method of claim 30, wherein the disease-state is prostate cancer.
36. (CANCEL)
37. (CURRENTLY AMENDED) The method of claim 30, wherein the monoclonal antibody is selected from a group consisting of ~~a polyclonal antibody, a monoclonal antibody,~~ a chimeric antibody, a humanized antibody and a fully-human antibody.
38. (NEW) A method of detecting a disease-state in a subject, wherein the disease-state is associated with expression of an RG1 polypeptide having the amino acid sequence of SEQ ID NO: 2, and wherein the method comprises:
 - (a) obtaining a biological sample from a subject;
 - (b) contacting the biological sample with an immunoconjugate, wherein the immunoconjugate comprises a monoclonal antibody or a fragment thereof that specifically binds to the RG1 polypeptide having the amino acid sequence of SEQ ID NO: 2, wherein the monoclonal antibody or the fragment thereof is conjugated to a molecule which is a detectable marker;
 - (c) detecting the bound immunoconjugate; and

Richard Harkins et al.
Serial No. 10/624,884
Filed: July 22, 2003
Page 5

- (d) determining if the level of bound immunoconjugate is increased as compared with the level of bound immunoconjugate in disease-free subjects, an increased level being indicative of a disease state.
39. (NEW) The method of claim 38, wherein the disease-state is prostate cancer.
40. (NEW) A method for detecting the presence of RG1 polypeptide having the amino acid sequence of SEQ ID NO: 2 in a biological sample comprising:
- (a) contacting the biological sample with a monoclonal antibody or a fragment thereof that specifically binds to the RG1 polypeptide having the amino acid sequence of SEQ ID NO: 2; and
 - (b) detecting the bound monoclonal antibody or a fragment thereof, in the biological sample.
41. (NEW) The method of claim 40, wherein detecting comprises:
- (a) contacting the monoclonal antibody or a fragment thereof bound to the RG1 polypeptide with a second antibody labeled with a detectable marker so as to form a complex, wherein the complex comprises the monoclonal antibody or a fragment thereof bound to RG1 polypeptide and the second antibody, and
 - (b) detecting the complex so formed, thereby detecting the presence of RG1 polypeptide having the amino acid sequence of SEQ ID NO: 2 in a biological sample.
42. (NEW) A method of monitoring the course of prostate cancer in a subject comprising quantitatively determining in a first biological sample from the subject the presence of the RG1 polypeptide having the amino acid sequence of SEQ ID NO: 2 and comparing the amount so determined with the amount present in a second biological sample from the subject, such samples being taken at different

Richard Harkins et al.
Serial No. 10/624,884
Filed: July 22, 2003
Page 6

points in time, a difference in the amounts determined being indicative of the course of prostate cancer.

43. (NEW) A method for determining the prognosis of subject suffering from prostate cancer by monitoring the course of prostate cancer by the method of claim 42, an increase in the amount of RG1 polypeptide having the amino acid sequence of SEQ ID NO: 2 in the same subject at different points in time being indicative of poor prognosis.
44. (NEW) The method of claims 38 or 41, wherein the detectable marker is a radioisotope, a fluorescent compound, a bioluminescent compound, chemiluminescent compound, a metal chelator or an enzyme.
45. (NEW) The method of claims 38, 40, 41 or 42, wherein the biological sample is serum, blood, urine, prostate tissue or non-prostate tissue.
46. (NEW) The method of claims 38 or 40, wherein the monoclonal antibody is selected from a group consisting of a chimeric antibody, a humanized antibody and a fully-human antibody.
47. (NEW) The method of claim 30, wherein the disease-state is advanced metastatic prostate cancer.
48. (NEW) The method of claims 30 or 38, wherein the immunoconjugate binds amino acids 31-103 of SEQ ID NO: 2.
49. (NEW) The method of claims 30 or 38, wherein the immunoconjugate binds amino acids 28-46 of SEQ ID NO: 2.